

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A wireless communication system comprising:
a first subscriber subsystem disposed at a subscriber location having a first subscriber data interface and a first digital interface, wherein said first subscriber system provides only digital processing of said subscriber data and wherein said first subscriber data interface provides a first broadband interface and provides an interface compatible with a first general purpose protocol, said first general purpose protocol a broadband protocol, and said first digital interface provides an interface compatible with a protocol other than said first general purpose protocol;
a second subscriber subsystem disposed at said subscriber location having a second subscriber data interface and a second digital interface, wherein said second subscriber data interface provides an interface compatible with a wireless protocol, and wherein said second digital interface is coupled to said first digital interface to provide communication of subscriber data between said first subscriber data interface and said second subscriber data interface; ~~and~~
wherein said first subscriber subsystem comprises an indoor unit subsystem and said second subscriber subsystem comprises an outdoor unit subsystem; and
a third subsystem having a third subscriber data interface and a third digital interface, wherein said third subscriber data interface provides an interface compatible with said wireless protocol, and wherein said third digital interface is coupled to said first digital interface to provide communication of subscriber data between said first subscriber data interface and said third subscriber data interface.

2. (Original) The system of claim 1, wherein said general purpose protocol comprises a protocol selected from the group consisting of T1, T3, E1, E3, OC-1, OC-3, OC-12, and ISDN.

3. (Original) The system of claim 1, wherein said general purpose protocol comprises Ethernet.

4. (Original) The system of claim 1, wherein said general purpose protocol comprises SONET.

- 5.-6. (Canceled)
7. (Previously Presented) The system of claim 1, wherein said first subscriber subsystem comprises an OFDM digital modem.
8. (Previously Presented) The system of claim 1, wherein said first subscriber subsystem comprises a digital multiplexer.
9. (Previously Presented) The system of claim 1, wherein said first digital interface comprises a fiber optic interface.
10. (Previously Presented) The system of claim 1, wherein said second subscriber subsystem provides all analog processing of said subscriber data provided by said system.
11. (Previously Presented) The system of claim 10, wherein said second subscriber subsystem comprises a frequency converter for conversion between an intermediate frequency and a radio frequency.
12. (Previously Presented) The system of claim 10, wherein said second subscriber subsystem comprises at least one amplifier.
13. (Previously Presented) The system of claim 10, wherein said second subscriber subsystem comprises a digital multiplexer.
14. (Original) The system of claim 10, wherein said second digital interface comprises a fiber optic interface.
15. (Original) The system of claim 1, wherein said communication of subscriber data via said first and second digital interfaces is synchronous.
16. (Previously Presented) The system of claim 15, wherein said synchronous communication of subscriber data comprises synchronous overhead added to said subscriber data by a transmitting one of said first and second subscriber subsystems.

17. (Original) The system of claim 16, wherein said synchronous overhead comprises training sequence bits.

18. (Original) The system of claim 16, wherein said synchronous overhead comprises timing bits.

19. (Original) The system of claim 15, wherein said synchronous communication of subscriber data comprises use of a synchronous protocol.

20. (Original) The system of claim 19, wherein said synchronous protocol comprises SONET.

21. (Original) The system of claim 19, wherein said synchronous protocol comprises resilient packet ring access.

22. (Canceled)

23. (Currently Amended) The system of claim 1 [[22]], wherein said third digital interface is coupled to said first digital interface through said second digital interface.

24. (Original) The system of claim 23, wherein said third digital interface is also coupled to said first digital interface via a connection not made through said second digital interface.

25. (Currently Amended) The system of claim 1 [[22]], wherein said second digital interface and said third digital interface are coupled to said first digital interface through a multi-port device.

26. (Original) The system of claim 25, wherein said multi-port device comprises a data router.

27. (Original) The system of claim 25, wherein said multi-port device comprises a data switch.

28. (Original) The system of claim 1, wherein said first digital interface comprises multi-port data routing functionality.

29. (Original) The system of claim 1, wherein said first digital interface comprises multi-port data switching functionality.

30. (Original) The system of claim 1, wherein said second digital interface comprises multi-port data routing functionality.

31. (Original) The system of claim 1, wherein said second digital interface comprises multi-port data switching functionality.

32. (Original) The system of claim 1, wherein said first and second subscriber data interfaces provide broadband interfaces.

33. (Currently Amended) A method for providing wireless subscriber data signal processing, said method comprising:

providing a first signal processing subscriber subsystem having a first broadband interface providing only digital signal processing with respect to said subscriber data signal, said first subscriber subsystem disposed at a subscriber location;

providing a second signal processing subscriber subsystem providing analog and digital signal processing with respect to said subscriber data signal, said second subscriber subsystem disposed at said subscriber location;

coupling said first signal processing subscriber subsystem and said second signal processing subscriber subsystem using a digital link;

communicating a synchronous signal via said digital link; ~~and~~

wherein said first signal processing subscriber subsystem comprises an indoor unit and said second signal processing subscriber subsystem comprises an outdoor unit; and

providing a third signal processing subsystem providing analog and digital signal processing with respect to said subscriber data signal; and

coupling said first signal processing subscriber subsystem and said third signal processing subsystem using said digital link.

34. (Original) The method of claim 33, wherein said digital link comprises a fiber optic link.

35. (Canceled)

36. (Previously Presented) The method of claim 33, further comprising:
coupling said first signal processing subscriber subsystem to a subscriber data communication backbone.

37. (Original) The method of claim 36, wherein said communication backbone comprises a network selected from the group consisting of:

the Internet;
the PSTN;
a LAN;
a WAN; and
a MAN.

38. (Previously Presented) The method of claim 36, wherein an interface protocol utilized in coupling said first signal processing subscriber subsystem to said data communication backbone comprises a protocol selected from the group consisting of T1, T3, E1, E3, OC-1, OC-3, OC-12, and ISDN.

39. (Previously Presented) The method of claim 36, wherein an interface protocol utilized in coupling said first signal processing subscriber subsystem to said data communication backbone comprises Ethernet.

40. (Previously Presented) The method of claim 36, wherein an interface protocol utilized in coupling said first signal processing subscriber subsystem to said data communication backbone comprises SONET.

41. (Previously Presented) The method of claim 36, wherein an interface protocol utilized in coupling said first signal processing subscriber subsystem to said data communication backbone comprises resilient packet ring access.

42. (Previously Presented) The method of claim 33, further comprising:
coupling said second signal processing subscriber subsystem to a wireless subscriber data communication channel.

43. (Canceled)

44. (Currently Amended) The method of claim 33 [[43]], further comprising:
coupling said first signal processing subscriber subsystem and said third signal processing subsystem using another digital link.

45. (Original) The method of claim 44, wherein said digital link comprises a fiber optic link and said another digital link comprises a fiber optic link.

46. (Previously Presented) The method of claim 44, further comprising:
configuring communication via said digital link and said another digital link to provide a resilient packet ring communication topology between said first signal processing subscriber subsystem and each of said second and third subsystems.

47. (Previously Presented) The method of claim 33 wherein communication of said synchronous signal enables media access control to be provided by said first signal processing subscriber subsystem with respect to a physical link utilized by said second signal processing subscriber subsystem.

48.-61. (Canceled)

62. (Previously Presented) The system of claim 1 wherein said first subscriber subsystem comprises an OFDM digital modem configured to accept/provide digital subscriber data communication thereto.

63. (Previously Presented) The system of claim 62 wherein said OFDM digital modem provides multiplexing of digital signals communicated between said first and second subscriber subsystems.

64. (Currently Amended) Communication system, said system comprising:

an indoor subsystem comprising a broadband interface compatible with a broadband protocol and a first digital interface compatible with a digital protocol, wherein only processing of digital signals is performed by said indoor subsystem;

a first outdoor subsystem comprising a wireless interface and a second digital interface compatible with a digital protocol, wherein all processing of analog signals performed by said system is performed by said first outdoor subsystem;

wherein said second digital interface communicates with said first digital interface via a digital link to provide digital communication of subscriber data between said indoor system and said first outdoor system; and

a second outdoor subsystem, said second outdoor subsystem connected to said outdoor subsystem via a digital link;

wherein said first digital interface further comprising multiport components for communication between said indoor unit and both of said first outdoor subsystem and said second outdoor subsystem.

65. (Previously Presented) The system of claim 64 wherein said link between said first digital interface and said second digital interface comprises a fiber optic cable.

66. (Previously Presented) The system of claim 64 wherein said digital communication comprises synchronization data comprising at least one from the group consisting of: timing bits and training sequences.

67. (Previously Presented) The system of claim 64 wherein said indoor subsystem comprises:

a digital modem coupled to said broadband interface;

a digital multiplexer coupled to said digital modem; and

wherein said digital interface is coupled to said digital multiplexer.

68. (Previously Presented) The system of claim 65 wherein said first digital interface and said second digital interface provide arbitration between said fiber optic cable and internal circuitry of said indoor subsystem and said outdoor subsystem, respectively.

69. (Canceled)

70. (Currently Amended) A communication method, said method comprising:
providing an indoor subsystem comprising a broadband interface compatible with a broadband protocol and a first digital interface compatible with a digital protocol, wherein only processing of digital signals is performed by said indoor subsystem;

providing a first outdoor subsystem comprising a wireless interface and a second digital interface compatible with a digital protocol, wherein all processing of analog signals performed by said system is performed by said first outdoor subsystem;

wherein said second digital interface communicates with said first digital interface via a digital link to provide digital communication of subscriber data between said indoor system and said first outdoor system; and

providing a second outdoor subsystem, said second outdoor subsystem connected to said outdoor subsystem via a digital link;

wherein said first digital interface further comprising multiport components for communication between said indoor unit and both of said first outdoor subsystem and said second outdoor subsystem.

71 (Previously Presented) The method of claim 70 wherein said link between said first digital interface and said second digital interface comprises a fiber optic cable.

72. (Previously Presented) The method of claim 70 wherein said digital communication comprises synchronization data comprising at least one from the group consisting of: timing bits and training sequences.

73. (Previously Presented) The method of claim 70 wherein said indoor subsystem comprises:

a digital modem coupled to said broadband interface;
a digital multiplexer coupled to said digital modem; and
wherein said digital interface is coupled to said digital multiplexer.

74. (Previously Presented) The method of claim 71 wherein said first digital interface and said second digital interface provide arbitration between said fiber optic cable and internal circuitry of said indoor subsystem and said first outdoor subsystem, respectively.

75. (Canceled)